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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,242	09/30/2003	Un Nyoung Sa	054358-5015	5386
9629 7590 06/25/2007 MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			EXAMINER NGUYEN, THANH NHAN P	
			ART UNIT 2871	PAPER NUMBER
			MAIL DATE 06/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,242	Applicant(s) SA ET AL.	
	Examiner (Nancy) Thanh-Nhan P. Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US 6,417,899).

Jones discloses (fig. 2) a liquid crystal display device comprising;

Claim 5:

- a transparent insulating substrate (29)
- a black matrix (21) formed on the transparent insulating substrate
- a color filter layer (23, 25, 27) formed on an upper surface of the black matrix
- a polarizing film (17) formed on the color filter layer
- a common electrode (15) formed on the polarizing film

Jones lacks disclosure of wherein the polarizing film is parallel to the transparent insulating substrate.

However, since the shape of the internal polarizing (17) depends on the shape of the polarizer alignment layer (19), (col. 6, lines 26-37), it would have been obvious to one ordinary skill in the art to obtain the polarizing film parallel to the transparent insulating substrate when the polarizer alignment layer is parallel to the transparent

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insulating substrate, and therefore, this limitation does not patentably distinguish the invention.

Claim 6:

- an overcoat film ('19' – *polarizer alignment layer '19' could be acted as an overcoat film: emphasis added*) formed between the color filter layer and the polarizing film

Claim 7:

- wherein the common electrode includes ITO

Claims 8-10 are met the discussion regarding claims 5-7 rejection above, respectively.

Claim 11:

- wherein forming the color filter layer includes sequentially forming red, green, and blue color filter layers

Claim 12:

- a thin film transistor substrate
- a color filter substrate having a black matrix (21)
- a liquid crystal material (11) formed between the thin film transistor substrate and the color filter substrate
- a pixel electrode (7) formed on the thin film transistor substrate and a common electrode (15) formed on the color filter substrate, the pixel electrode and the common pixel aligning orientation of liquid crystal molecules of the liquid crystal material

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- a polarizing film (17 or 53) contacting at least one of the pixel electrode and the common electrode for transmitting light vibrating in one direction

Jones lacks disclosure of wherein the polarizing film is parallel to the transparent insulating substrate.

However, since the shape of the internal polarizing (17) depends on the shape of the polarizer alignment layer (19), (col. 6, lines 26-37), it would have been obvious to one ordinary skill in the art to obtain the polarizing film parallel to the transparent insulating substrate when the polarizer alignment layer is parallel to the transparent insulating substrate, and therefore, this limitation does not patentably distinguish the invention.

Claim 13:

- wherein the polarizing film includes polyvinyl alcohol (col. 2, lines 5-8)

Claim 14:

- an overcoat film ('19' – *polarizer alignment layer '19' could be acted as an overcoat film: emphasis added*) formed beneath the polarizing film, wherein the polarizing film contacts the common electrode

Claim 15:

- a first substrate including a plurality of pixel electrodes (7)
- a second substrate including a common electrode (15), a color filter film (23, 25, 27), and a black matrix (21)
- a liquid crystal material (11) formed between the first and second substrates

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- an overcoat film ('19' – *polarizer alignment layer '19' could be acted as an overcoat film: emphasis added*) on the color filter film
- a polarizing film (17) formed beneath the common electrode

Even though Jones lacks disclosure of wherein an upper surface of the overcoat film is flat, it was well known and would have been obvious to one ordinary skill in the art to have the upper surface of the overcoat film is flat as for the advantages such as flattening/smoothing the color filter surface.

Claim 17:

- a first substrate including a plurality of pixel electrodes (7)
- a second substrate including a common electrode (15), a color filter film (23, 25, 27), and a black matrix (21)
- a liquid crystal material (11) formed between the first and second substrates
- an overcoat film ('19' – *polarizer alignment layer '19' could be acted as an overcoat film: emphasis added*) on the color filter film
- a polarizing film (17) formed beneath the common electrode
- wherein the overcoat film directly contacts the color filter film and the polarizing film

Allowable Subject Matter

1. The indicated allowability of claims 5-14, 16 and 17 is withdrawn in view of the reference(s) to Jones. Rejections based on the reference(s) above.
2. Claims 1-4 are allowed since there is no prior art of record that teaches or suggests a liquid crystal display and a method of making thereof comprising a

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relationship of various elements as claimed with the specific allowable subject matter cited in the following claims:

- a passivation film formed on the transparent insulating substrate including the source and drain electrodes and the data lines
- a polarizing film formed on the passivation film
- a pixel electrode formed on at least the polarizing film, wherein the polarizing film and the pixel electrode extend completely over the data line, and the polarizing film contacts the passivation film

Response to Arguments

Applicant's arguments with respect to claims 5-15 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen

Examiner
Art Unit 2871

TN



David Nelms
Supervisory Patent Examiner
Technology Center 2800